

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A target intended to emit neutrons when bombarded with particles, comprising:

neutron emissive parts and neutron non-emissive parts which are juxtaposed, only the neutron emissive parts emitting neutrons during the bombardment with particles, said emissive and non-emissive parts being arranged so as to form a non-uniform pattern as a coded mask such that said target emits a neutron flow including plural neutron beams coded by the pattern of the mask.

Claim 2 (Previously Presented): The target according to claim 1, wherein the emissive parts are formed from at least one metal hydride, the metal of the metal hydride being deposited on a support in non-hydrogen fixing material through a stencil.

Claim 3 (Withdrawn): The target according to claim 1, further comprising:
an extended neutron emissive zone formed from at least one metal hydride, said extended zone cooperating with a mask in neutron non-emissive material, the non-emissive material of the mask partially covering up the extended emissive zone vis-à-vis the particles and forming non-emissive parts.

Claim 4 (Withdrawn): The target according to claim 3, wherein the extended emissive zone is supported by a support in a non-hydrogen fixing material.

Claim 5 (Previously Presented): The target according to claim 2, wherein the non-hydrogen fixing material of the support is chosen from among copper, silver or gold, said metals being used alone or in combination.

Claim 6 (Withdrawn): The target according to claim 2, wherein the metal hydride is chosen from the group consisting of titanium hydride, zirconium hydride, erbium hydride, scandium hydride and vanadium hydride.

Claim 7 (Withdrawn): The target according to claim 3, wherein the non-emissive material of the mask is chosen from among molybdenum, steel, iron, copper, tungsten and tantalum, said metals being used alone or in combination.

Claim 8 (Previously Presented): A particle accelerator, comprising a target according to claim 1.

Claim 9 (Cancelled).

Claim 10 (Previously Presented): The particle accelerator according to claim 8, wherein the particle accelerator is equipped with an α particle detector associated with the emission of neutrons.

Claim 11 (Previously Presented): The particle accelerator according to claim 10, wherein the α particle detector comprises a plurality of pixels arranged in a matrix.

Claim 12 (Previously Presented): The particle accelerator according to claim 10, wherein the target is inclined in relation to the direction of the particles that are bombarding it.

Claim 13 (Previously Presented): The particle accelerator according to claim 10, wherein the target is substantially parallel to the α particle detector.

Claims 14-15 (Cancelled).

Claim 16 (Previously Presented): A neutron generating tube, comprising a target according to claim 1.

Claim 17 (Cancelled).

Claim 18 (Previously Presented): The neutron generating tube according to claim 16, wherein the neutron generating tube is equipped with an α particle detector associated with the emission of neutrons.

Claim 19 (Previously Presented): The neutron generating tube according to claim 18, wherein the α particle detector comprises a plurality of pixels arranged in a matrix.

Claim 20 (Previously Presented): The neutron generating tube according to claim 18, wherein the target is inclined in relation to the direction of the particles that are bombarding it.

Claim 21 (Previously Presented): The neutron generating tube according to claim 18, wherein the target is substantially parallel to the α particle detector.

Claims 22-23 (Cancelled).